

# NATURE'S

## Grapevine

WASHINGTON CROSSING STATE PARK, NJ

Winter 2011

### A Unique Archaic Find Near the Park

By Jim Silk

Reconstructive lithic technologist and stone tool maker

Some years ago, the son of the park naturalist at Washington's Crossing State Park, was examining a stream outside of the park off the west boundary. An unusual stone caught the young boy's attention and upon retrieving it, to his excitement, he realized his find was that of an ancient stone tool. With an abounding imagination, the boy perhaps considered that he might be the first person to touch this artifact since its user hundreds or maybe even thousands of years earlier. Indeed, even much earlier than he suspected, the piece appears to be a Hardaway-Dalton projectile point manufactured sometime just after the last ice age ended 10,000 years ago.

Stone tools are identified by time periods, locations, cultural styles, purpose or use, technologies used to make them, and materials from which they are made. This projectile point known as a "Dalton" is one of many stone tool types from North America that evolved having several variations from a basic style. The Dalton stone industries include manufactured variants of knives, projectile points and drills that influenced a time period from 10,800 to 8,000 before present. Its earliest discovery was from a Missouri site by Judge S. P. Dalton who found many specimens. The greatest concentration of the earliest Dalton artifacts was discovered at sites in Arkansas and Missouri. Because of the substantial time span and continental distribution, many varieties of the Dalton point have been recognized and given different names. This family of related points ranges from the east coast to the Rocky Mountains and from Canada to the Gulf Coast. Bruce Bradley, archaeologist (1997), indicated that the earliest Dalton points bear a close resemblance to the Paleo fluted Clovis type technology and suggests a clear evolution from the latter. The base area of many early Dalton variants were highly thinned or even fluted.

The basic shape of the Dalton point is lanceolate. It expands out from the tip on both sides with a curved blade retreating back inward toward a base area. The blade area is often serrated in its first manufactured form. In the base area, most appear to be auriculate, (having ears that are rounded, curved or pointed and project outwardly from the base or stem in the area of attachment to a spear, arrow shaft or knife handle). The base can

have various degrees of concavity. These characteristics can be seen in the many different forms, such as the Classic Dalton, the Breckenridge, Colbert, Greenbrier, Hemphill, Nuckolls, Meserve, Sloan and Hardaway-Dalton. When resharpened, the blade edges frequently are serrated. I suspect other forms, such as San Patrice from the Midwest to the Gulf and the Alamance found from the coastal areas of Virginia to Florida, have also been influenced by the Dalton technology.



photo credit: Wayne Henderek

**The Hardaway-Dalton point shown above was found in a Hopewell Twp., NJ stream immediately west of WCSP in 2003.**

Projectile point styles seem to be culturally influenced by a peoples' hunting needs, a group's ability to produce large quantities of the same style tools, competition within a group for successful production of quality tools, conservation and proper use of flint and the manufacturing of tools for trade with other groups of people. At the end of the last ice age, around 13,500 to 12,000 years ago, the fluted spear point was instrumental in hunting large ice age animals in North America. Gradually, with the retreat of the glaciers, climate changes and environmental terrain changes, many ice age mammals became extinct or reduced in size. Modern plants, hardwood forests and smaller animal species now native to the North American continent signaled the beginning of the Archaic period. Archaic peoples began to change their approaches to hunting and life ways. Projectile points became smaller and thinner, and the need to channel flake or flute large spearheads for



hafting (attaching by various means) to spears disappeared. The atlatl spear thrower, which was predominately used in Paleo times to hunt the large game, was possibly joined by the bow and arrow technology in the Archaic era. However, the oldest bow found and documented in North America is dated at only 1,500 years ago. Smaller projectile points, presumably for arrows, date back approximately 30,000 years ago in parts of Europe. Smaller projectile points dating to the Archaic period in North America could arguably also have been used with bows.

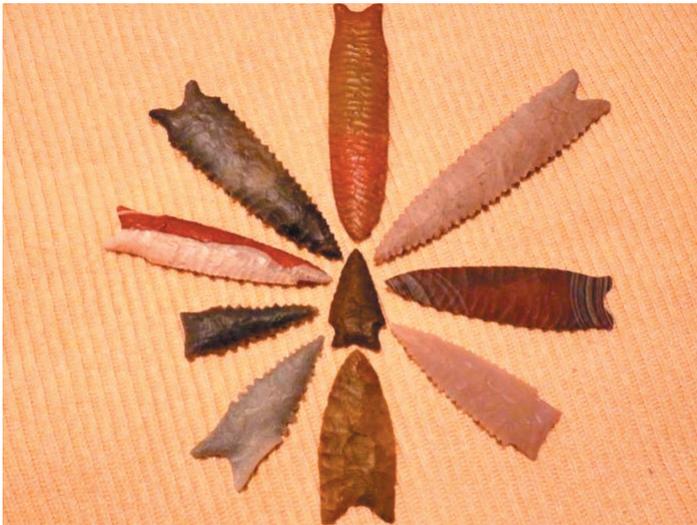


photo credit: JoAnn Williams

**Replicated Dalton Point variants are pictured above. The piece in the center is a Hardaway-Dalton created by the author.**

The Henderek Hardaway-Dalton point (the specific artifact previously referenced and pictured) was found in an unnamed stream not far from the Delaware River. It appears to be made of a chert or flint, which is from Tennessee, Texas or Kentucky. It has been resharpened several times and its form probably represents the last phase of use. In its last form, the blade edges appear quite beveled. The notched auriculate ears are heavily ground. Through its transition, it could have been used as a spear point, knife blade or arrowhead. The artifact measures 1 7/8 in. long, the approximate width is 1 in. and it is 1/4 in. thick. What is interesting, is the fact that the material came from a distance and the point was possibly made and transported by people from another region. Non-regional material could also suggest the existence of trade networks that made specialized stone available to Early Archaic people in our area. Funk (1991) states,

“It is not known whether the presence of such projectile points and associated artifacts can be explained by an actual migration of people and ideas from the south, along the Atlantic Coast and up the major river systems, or whether their presence is more likely due to diffusion or stimulus diffusion, where the projectile points themselves are traded, or the idea of the artifacts shape and form is what moves from area to area” (p. 49-67).

Kraft (2001) believes,

“In addition to the coastal areas of the Southeast, influences may also have emanated from the general direction of West Virginia, Tennessee and other Appalachian places” (p. 95).

Stanzaski (1996, 1998) offers,

“Hardaway-Dalton points, although undated in our area, appear to be the most ancient of the defined early Archaic projectile points. There were eight Hardaway-Daltons found at the Logan site, Burlington County, New Jersey (1996:69-72, 1998:43).”

Staats (1998) adds,

They[Hardaway-Dalton] appear in the “mucklands” that make up much of the Great Meadows in Warren County, NJ” (p. 114-115).

Kraft (2001) also adds that they appear,

“in the Assunpink Creek, which drains much of Mercer and western Monmouth County, New Jersey; at the Mitchell Farm site in New Castle County, Delaware; and most likely in other sites, as yet unreported” (p. 94).

It is wonderful to think that a small ancient artifact from the past can tell us so much about the history surrounding our park system and how this tool represents Archaic North American life ways. If we open our minds, the hills, streams and mountains are truly alive with visions of these early inhabitants and their tool making industries. ❖

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Jim Silk is a long-time volunteer and friend of the Nature Center. He has been a researcher of regional stone tool making technologies and aboriginal life ways for 18 years. He has studied with several noted archaeologists and lithic technologists, and participated in reconstructive archaeology with the use of stone tools. He currently lectures and demonstrates Paleo stone tool making. Special thanks go to JoAnn Williams for her continued support, photography and editing skills. Use of this article is available upon request at [lithicprimtech@optimum.net](mailto:lithicprimtech@optimum.net).

**Please note that removal of artifacts from publicly owned property is illegal pursuant to P.L. 2004,c170.**

## VOLUNTEER NOTES

**Al Fitipaldi**, Titusville, modified our wayside trail benches in order to make them more functional and comfortable. Al also assisted with our holiday wreath making program by collecting greens.

Many thanks go out to all the volunteers who participated in Primitive Technologies Day and Knap-in in October and who made the event a great success. Special recognition goes to the **Schindler Family** of Church Hill, MD and Shrewsbury, NJ for organizing the event.

Several volunteers from **CDM Inc.** an environmental consulting firm in Edison came out in October to modify the drainage along one of our trails in order to check erosion on the trail's surface.

**Dr. Ken Kremer**, Lawrenceville, delivered a very interesting program on the robotic exploration of Mars.

**Jim Wade**, Princeton, came out to the park to conduct a fascinating presentation on the Native peoples that inhabited the area of WCSP in prehistoric times. Jim also participated in Primitive Technologies Day.

**Marie Curcio**, Rockaway, donated two large bags of bird food.

This newsletter is available free of charge electronically . It can be downloaded at the web address below. Requests to be included on the emailing list may be made by contacting the Nature Center.



**Nature**  
CENTER

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**Hours**..... Wed - Sat 9:00 a.m. - 4:00 p.m.  
Sun 12:00 p.m. - 4:00 p.m.  
Closed Mon and Tues

**Website**.....[www.state.nj.us/dep/parksandforests/parks/washcros.html](http://www.state.nj.us/dep/parksandforests/parks/washcros.html)

**Park Naturalist**

**& Newsletter Editor**.....Wayne Henderek





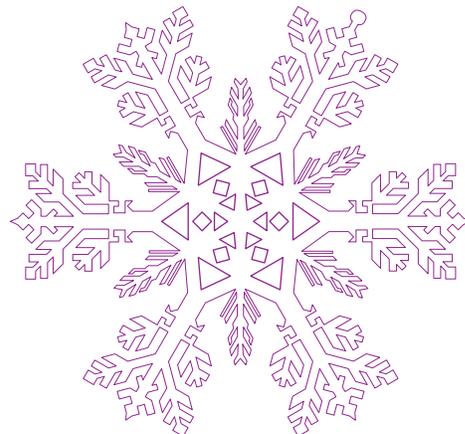
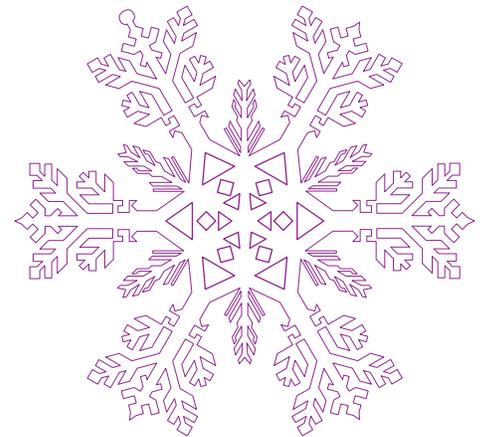
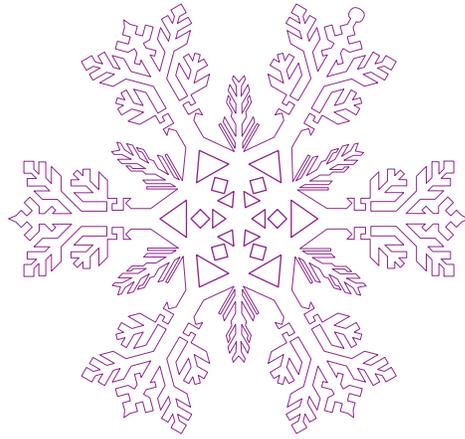
Volunteers from CDM help resolve drainage issues along a trail in WCSP last autumn.

Ben and Jean Strauss, Titusville, assisted with our holiday wreath making event. Nettie Rekowski, Ewing and Cheryl Burgos, Morrisville, staffed the Nature Center during public programs and assisted with various chores this past autumn.

## Around the Park

☼ Scout and school groups from Titusville, Pennington, Lawrenceville, Mercerville, Hamilton Square, Plainsboro, Montgomery, Palmyra, Moorestown and South Boundbrook visited the WCSP Nature Center for programs in forestry, wildlife, shelter building and other natural resource conservation topics this past autumn. We are currently scheduling events for winter and spring 2011. A listing of group programs is posted on our web page under "Nature Center". Interested scout leaders and teachers should contact us to make arrangements for an event.

☼ Long-time WCSP superintendent David Donnelly has permanently transferred to Cheesequake State Park. WCSP, for the time being, is under the supervision of Parks Central Region superintendent, Joe Winnicki. Congratulations Dave on your new assignment and best wishes. Welcome aboard Joe.



## Winter Programs at the Nature Center

The following is a list of activities being offered through the Nature Center at Washington Crossing State Park in Titusville, New Jersey. All programs are offered free of charge. Some will require advanced registration as indicated below. Attendance is always limited and is available on a first-come, first-served basis. Programs will commence at the Nature Center unless otherwise indicated. An adult must accompany all children.. In the event of inclement weather some events might be canceled. It is always advisable to call ahead before coming out. These events are intended for families and individuals only. Programs for scouts, schools and other groups are scheduled separately by special arrangement. **Phone : (609) 737-0609**

**BALDPATE MOUNTAIN HIKE** (pre-teen – adult) Sunday January 9, 1:30 – 4:00 p.m. We will take the red trail from its trail head on Church Rd. to the top of the hill. Meet at the parking lot by Neiderer's Pond (Church Rd). Advanced registration required. Bring a water bottle and wear hiking shoes. Free.

**THE NATURE IN ME** (5 yrs. – 8 yrs.) Sunday January 16, 1:30 - 2:30 p.m. Do you ever wake up feeling like a bear or perhaps a butterfly? Do you eat like a bird or maybe you sleep like a log. We, all at times, relate to objects in nature. With the help of a parent or other adult, children will trace and cut out a life-sized paper outline of themselves. They will then fill in the empty space with appropriate pictures and illustrations cut from old nature magazines in this fun nature craft activity. Free.

**NATURE VIDEO** Saturday January 22, 12:45 p.m. *The Earth Speaks* This video presents naturalist Tom Brown as he takes viewers on a trip back into the "heart of creation." In this program, Brown shows viewers how to relearn their appreciation for the wilderness, and how to see anew, the surrounding world. Free.

**NATURE VIDEO** Saturday January 29, 12:45 p.m. *Pine Barrens Journey* The Pine Barrens is a popular recreation destination for bikers, campers, hikers, canoeists and nature lovers from around the state and country. Take a virtual trip to New Jersey's Pine Barrens to examine the rich culture and colorful heritage of this secluded region. Free

**NATURE VIDEOS** Saturday February 5, 12:45 p.m. *Coast Walks* A look at the ecology of New Jersey's Atlantic Ocean coastline, from the brown sand of Sandy Hook and the dunes of Island Beach to the boardwalk of Atlantic City and the peninsula of Cape May. *Journey to Survival*. "Survival" provides fascinating insights into a variety of wilderness survival techniques. Free.

**THE PALEO AND ARCHAIC INDIANS OF NEW JERSEY** Sunday February 6, 1:30 p.m. **Jim Wade**, former archivist and researcher with the N.J. State Museum and **Jim Silk**, regional reconstructive lithic technologist, will take participants on a journey back to the time of the end of the last ice age when the earliest Native American people entered what is now New Jersey. Discover how these Paleo-Indians lived and survived in an arctic landscape filled with strange prehistoric fur-covered animals, like the Woolly Mammoth, Great Elk and Musk Oxen. Learn how these earliest people adapted to their harsh environment and hunted with specialized clovis spear points. See how these prehistoric hunters opened the way for new bands of Archaic peoples who followed with new innovative stone tools and lifestyles. The program will include a slide presentation and Native American artifacts will be displayed.

**NATURE VIDEOS** Saturday February 12, 12:45 p.m. *Shorebirds: A Rite of Spring* Millions of migrating shorebirds depend on the New Jersey shore of the Delaware Bay to breed. This program shows these shorebirds as they arrive on the beaches, depleted of over half their body weight and exhausted from a 6,000 mile journey and follows biologists and ornithologists as they study the shorebirds gorging on horseshoe crab eggs. *24 Hours of Birding* New Jersey is one of the best places in the United States for bird watching. This video follows three teams from the United States and beyond as they compete for the prize in the World Series of Birding. From midnight to midnight, the teams travel around the state in an attempt to locate the greatest number of species.

**NATURE VIDEO** Saturday February 19, 12:45 p.m. *Living Together on the Planet* This documentary explores some of the challenges facing the conservation movement going forward in the 21st Century. It attempts to frame the debate between the need for economic development and free markets in the developing world and the need for natural resource conservation with great nature videography and some thought-provoking concepts. Free  
continued next page

**(Nature Center events continued)**

**MAPLE SUGARING** (All Ages) Saturday February 26, 1:00 – 2:30 p.m. This event is a participatory demonstration in the procedures of home maple sugar production. Advanced registration required after 1/25 Free

**MAPLE SUGARING** (All Ages) Sunday March 6, 1:30 – 3:00 p.m. This event is a participatory demonstration in the procedures of home maple sugar production. Advanced registration required after 2/8. Free.

**MAPLE SUGARING** (All Ages) Saturday March 12, 1:00 - 2:30 p.m. This event is a participatory demonstration in the procedures of home maple sugar production. Advanced registration required after 2/8. Free.

**MAPLE SUGARING** (All Ages) Sunday March 13, 1:30 – 3:00 p.m. This event is a participatory demonstration in the procedures of home maple sugar production. Advanced registration required after 2/15. Free.

**WINTER BIRDS OF THE PARK** (All Ages) Sunday March 20, 1:30 - 3:30 p.m. Come join veteran birder **Lou Beck** of Washington Crossing Audubon as we walk the trails in search of a variety of winter bird species and perhaps some early spring migrants. Free.

**More WCSP events next page**

Winter Programs  
at the  
Visitor Center Museum  
(609) 737-9303

**HISTORY VIDEO** Saturday, January 8, 2:00 p.m.. *Washington's Weather*. The Weather Channel's series "When Weather Changed History" features George Washington and how weather played a pivotal role in his battles during the American Revolution. Free

**HISTORY VIDEO** Saturday, January 15, 2:00 p.m.. *Spies of the Revolutionary War*. Nathan Hale, John Honeyman, John Andre and Benedict Arnold are just a few of the spies who played a large role for both the American and British during the American Revolution. Free

**HISTORY VIDEO** Saturday, January 22, 2:00 p.m.. *POW's of the American Revolution*. This 70-minute video tells the story of the American Prisoners held on New York prison ships in Wallabout Bay. Free

**HISTORY VIDEO** Saturday, January 29, 2:00 p.m.. *Benedict Arnold: Triumph and Treason*. This 50-minute video describes the life of this enigmatic man. Free

**HISTORY VIDEO** Saturday, February 5, 2:00 p.m.. *John Paul Jones: Captain of the High Seas*. This 50-minute video recounts the life of America's first naval hero. Free

**HISTORY VIDEO** Saturday, February 12, 2:00 p.m.. *Ben Franklin*. A 90-minute video biography of America's great diplomat: Benjamin Franklin. Free

**HISTORY VIDEO** Saturday, February 19, 2:00 p.m.. *The Real George Washington*. A 45-minute video biography of our Nation's Founding Father: George Washington. Free

Winter Programs  
at the  
Johnson Ferry House  
(609) 737-2515

**WINTER FOODWAYS CLASS** Saturday, January 15, 10:00 am to 4:00 p.m.. (adults) Warm up and eat well! Mercy Ingraham will instruct this hearth cooking class using colonial recipes. Theme to be determined. Class size is limited and advanced-registration required.

**CHOCOLATE WORKSHOP** Saturday, February 5, from 10:00 am to 3:00 p.m.. Heart to Hearth Cookery's Susan Plaisted will instruct this class, taking the participants from bean to beverage. Class size is limited and advanced registration is required at 215-219-9542 or email- foodhxs@aol.com.

**GEORGE WASHINGTON'S BIRTHDAY CELEBRATION** Sunday, February 20, from 1:00 p.m. to 4:00 p.m.. A great family event. Toys, games, baking crafts, and other activities make this a lively and educational afternoon. Refreshments of punch and gingerbread. Free.

